



# FACT SHEET

January 2009 - Neodesha Refinery Site - Neodesha, Kansas

## Community Involvement Plan Available

In October 2008, KDHE completed the Community Involvement Plan for the Neodesha Refinery Site. This plan outlines the actions that KDHE will take to facilitate two-way communication between KDHE and the community and to ensure that residents are informed on a routine basis and provided with opportunities to be involved in the cleanup process. A copy of the Community Involvement Plan is available at the Information Repository in the W. A. Rankin Memorial Library and contemplates:

- Facilitation of a possible Community Advisory Group
- Expansion of the Information Repository
- Establishment of a KDHE-maintained web page for the Site
- Distribution of fact sheets and newsletters
- Public meetings, forums and availability sessions
- Educational workshops

KDHE has started working on these tasks and will provide more specific information (e.g., the address for the web page, educational workshop dates and topics, etc.) in the future. KDHE is seeking community members who would like to participate in the Community Advisory Group for the Neodesha Refinery Site. This group will assist KDHE in evaluating and selecting remedial alternatives as part of the Corrective Action Study process. If you are interested, please contact KDHE's Project Manager, Chris Carey, available at 785-296-0225 or [ccarey@kdheks.gov](mailto:ccarey@kdheks.gov).

## Mortality Rates in Neodesha Consistent with State

The Kansas Department of Health and Environment (KDHE) Office of Surveillance and Epidemiology (OSE) has completed a study of the death rate for residents of Neodesha in comparison to the death rate of the state of Kansas. The study finds that Neodesha has a higher proportion of residents over the age of 65 when compared to the state. Once adjusted to compensate for this difference, the death rates in Neodesha are similar to Kansas.

KDHE-OSE conducted the study in response to a question raised during the public availability session held at the W. A. Rankin Memorial Library on August 28, 2008. At that time, Interim State Epidemiologist D. Charles Hunt

agreed to review mortality data for Neodesha. The study compares the crude death rate and age-adjusted death rate for Neodesha to the entire state of Kansas as well as identifies the main causes of death in Neodesha. Consistent with the state, the top five causes for death in Neodesha are heart disease, cancer, chronic lower disease, and diabetes.

A copy of the mortality study is available in the Neodesha Refinery Site Information Repository at the W. A. Rankin Memorial Library. Questions about the study should be directed to Dr. Ingrid Garrison of the KDHE-OSE available by phone at 785-296-2501 or email at [igarrison@kdheks.gov](mailto:igarrison@kdheks.gov).

## Indoor Air Quality Evaluated Further

In November and December 2008, KDHE personnel collected indoor air, outdoor air and sub-slab samples from three residences, three schools and one church to assess whether contamination in groundwater from the Neodesha Refinery Site (petroleum hydrocarbons) and/or another contaminated site known as the Airosol Company Site (chlorinated solvents and refrigerants) is adversely affecting indoor air quality in the structures. Additional samples were taken to evaluate the performance of KDHE's contract laboratory.

The results of the sampling have been received by KDHE and are currently under review. In general, the results are consistent with previous sampling efforts; however, the concentrations of refrigerants detected in the Heller Elementary sub-slab sample are considerably lower than the June 2008 results. In mid-December, KDHE re-sampled four locations due to an equipment malfunction at KDHE's contract laboratory and one location due to a possible sampling error. An outdoor air sample was also collected at this time.

KDHE will disseminate the sample results to the property owners and affected parties in the near future and will then develop a Vapor Intrusion Evaluation Report which will be placed in the Information Repository at the W. A. Rankin Memorial Library.

Additional sub-slab and indoor air sampling is anticipated in the future. Questions regarding indoor air quality testing may be directed to Chris Carey, the KDHE Project Manager for the Neodesha Refinery Site, available by phone at 785-296-0225 or email at [ccarey@kdheks.gov](mailto:ccarey@kdheks.gov).



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## Planned Site Assessment Activities at the Neodesha Refinery Site

KDHE approved the Corrective Action Study for the Neodesha Refinery Site in 2005. Based on information collected since 2005, KDHE has determined that additional soil, groundwater, surface water and sediment samples are needed to fill identified data gaps before proceeding with the issuance of a draft Corrective Action Decision. While the sampling may delay issuance of the Corrective Action Decision, the end result will be a decision that considers the community's interests and addresses site-related contamination. To expedite the cleanup process, KDHE has requested that BP design and implement additional interim cleanup measures (i.e., vacuum enhanced product recovery and soil excavation) and conduct other pilot testing while simultaneously implementing planned sampling activities.

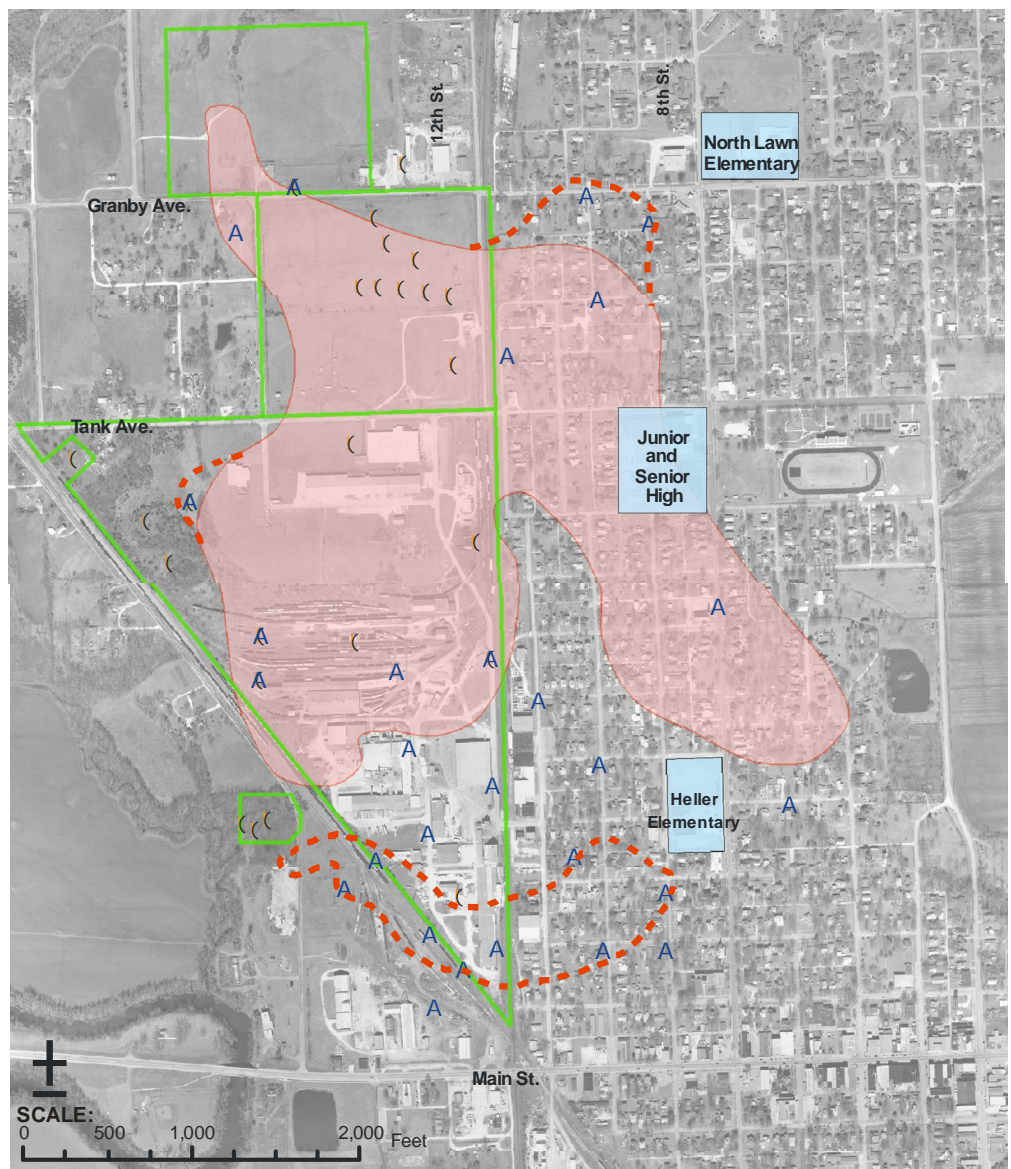
KDHE approved work plans for the additional sampling in September 2008. The plans identify the locations of new monitoring wells, soil borings, surface water samples and sediment samples (in both the Verdigris and Fall Rivers) and also specify the chemicals for which the samples will be tested. Sample locations were selected based on the results of previous sampling and other anecdotal reports provided to KDHE since approval of the Corrective Action Study. Samples will be tested for volatile organic compounds (VOCs) (such as benzene, toluene, ethylbenzene and xylene), semi-volatile organic compounds (SVOCs), metals (such as arsenic and lead) and total petroleum hydrocarbons (TPH).

In addition to sampling, hydrocarbon baildown tests or manual skimming tests will be conducted at wells with measurable amounts of free-phase hydrocarbons. The purpose of these tests is to determine the amount of free-phase hydrocarbons near the well and

evaluate the best options for removing it.

The figure below identifies the proposed soil boring and new monitoring well locations in the main refinery area. Four additional wells are proposed to monitor groundwater conditions near the former southern settling basins. The October 2007 benzene plume is also shown for reference purposes.

BP is currently working with property owners and the City of Neodesha to gain access to the necessary properties. Sampling activities will begin once access has been granted. KDHE will provide field oversight during much of the investigation including collection of split-samples for verification purposes. Copies of the work plans will soon be available in the Information Repository.



- A Proposed Monitoring Well Location
- C Proposed Soil Boring Location
- Approximate Benzene Plume Boundary (benzene concentration exceeding 5 micrograms per liter)

- Suspected benzene impact areas targeted for additional delineation
- Neodesha Refinery Site
- School

